

Remarks

In the Office Action dated November 22, 2002, the restriction requirement is maintained. The claims of Group I, Species III, i.e., claims 24-30, were selected for prosecution. Applicants hereby confirm the election of the invention of Group I, Species III, which read on FIG. 7A (the species of claims 24-30).

The abstract is objected to. Claims 24-28 stand rejected under 35 U.S.C. § 102(e) as being allegedly anticipated by Pinchasik *et al.*, U.S. Patent No. 5,449,373. Claim 29 stands rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Pinchasik *et al.*, in view of Barone *et al.*, U.S. Patent No. 5,683,452. Claim 30 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form, including all the limitations of the base claim and any intervening claims.

Claims 10-17 and 45-56, which are directed to unelected inventions and species, are hereby cancelled. New claims 60-74, which read on FIG. 7A, are added. Claims 24-30 are amended. Accordingly, claims 24-30 and 60-74 are pending in this application, claims 24, 30 and 68 being the independent claims.

Objection to the Abstract

The abstract has been amended in response to the objection. Applicants respectfully request that the objection to the abstract be withdrawn.

Allowable Claim 30

Applicants thank the Examiner for indicating the allowability of claim 30, subject to

being rewritten in independent form. Claim 30 has been placed in independent form, incorporating the limitations of claim 24, its base claim. Applicants also draw the Examiner's attention to the fact that claim 30 no longer recites that the expandable loops are resilient, and that the connector elements are plastically deformable. However, Applicants submit that claim 30 is nonetheless allowable, based on the reasons for allowance stated in the Office Action and the discussion below regarding claim 24.

Rejections under 35 U.S.C. § 102(e)

Claim 24 has been amended to address minor stylistic informalities, and to shorten the preamble. Claim 24 stands rejected under 35 U.S.C. § 102(e) as being allegedly unpatentable over Pinchasik *et al.* Applicants respectfully traverse this rejection. Claim 24 recites "resiliently expandable loops" and "plastically deformable connector elements." At least this limitation is not disclosed in Pinchasik *et al.*, which clearly does not contemplate that the connector elements and the loops may be made of materials having different characteristics. As discussed in the specification of the present application, see, e.g., page 23, lines 3-28, the loops preferably comprise a shape memory alloy, such as Nitinol, making them self-expanding (or resiliently expanding). The connector elements preferably comprise malleable (or plastically deformable materials), such as stainless steel, titanium, tantalum, etc. See page 23, lines 18-21. Pinchasik *et al.* disclose an entire stent made from "low memory, more plastic than elastic, bio-compatible material, for example, stainless steel 316L, gold, tantalum, etc., which enables them to be plastically deformed..." Col. 2, lines 42-46. Since Pinchasik *et al.* fail to disclose a stent whose loops and connector elements are made of materials having different characteristics, as recited in claim 24, claim 24 is not anticipated by Pinchasik *et al.*

Accordingly, Applicants respectfully request that the rejection of claim 24 under 35 U.S.C. § 102(e) be withdrawn.

Claims 25-29 have been amended to correct minor stylistic informalities. These claims depend from claim 24, and are allowable at least for the reasons applicable to claim 24, as well as due to the features recited therein.

Rejection under 35 U.S.C. § 103(a)

Claim 29, which was rejected based on a combination of Pinchasik and Barone, is allowable at least because the combination of these two references does not teach or suggest an endoluminal prosthesis whose resiliently expandable loops and plastically deformable connector elements are made of materials having different characteristics. The Examiner relied on Barone *et al.* merely to teach the use of a liner. Accordingly, for the reasons discussed above, and because its base claim is allowable, claim 29 is also allowable.

New claims 60-74

New claims 60-74 have been added to provide additional coverage for the present invention. Support for the language of the claims may be found, for example, in originally-filed claims 24-30, as well as at page 23, line 3 – page 24, line 21.

Newly added claims 60-63 depend from claim 24, and are allowable at least for the reasons applicable to claim 24, as well as due to the features recited therein.

Newly added claims 64-67 depend from claim 30, and are allowable at least because claim 30 is allowable, as well as due to the features recited therein.

Newly added claim 68 recites that “the expandable ring-frames and the connector

elements form an expandable tubular frame having regions of different malleability.” At least this aspect of the invention is not taught or suggested in any of the cited references, singly or in combination. As discussed above, one way of accomplishing this feature is by having different materials used in the loops and the connector elements, for example, Nitinol and stainless steel. None of the cited references teach or suggest this aspect of claim 68. Accordingly, claim 68, and its dependent claims 69-74, are allowable.

Conclusion

In view of the above discussion, Applicants believe the currently pending claims overcome the rejections/objections, and thus are in condition for allowance.

Should the Examiner have any questions with regard to this Response, or determine that any further action is necessary to place this Application in better form for allowance, the Examiner is encouraged to telephone Applicants’ representative at (202) 371-2600.

Respectfully submitted,

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Version With Markings To Show Changes/Amendments

In accordance with 37 CFR 1.121(c), the following version of the claims, as rewritten by the foregoing amendments, show the changes made relative to previous versions of the claims.

In the abstract:

Please amend the abstract to read as follows:

--[The present invention provides a] A branching endoluminal prosthesis for use in branching body lumen systems [which] includes a trunk lumen and first and second branch lumens. The [prostheses] prosthesis comprises a radially expandable tubular trunk portion having a prosthetic trunk lumen, and radially expandable tubular first and second branch portions with first and second prosthetic branch lumens, respectively. A radially expandable tubular Y-connector portion provides fluid communication between the prosthetic trunk lumen and the first and second prosthetic branch lumens. Although it is often considered desirable to maximize the column strength of endoluminal [prostheses] prosthesis, and although the trunk portion will generally have a larger cross-section than much of the remainder of a branching endoluminal [prostheses] prosthesis, the expanded trunk portion is more axially flexible than the expanded Y-connector portion, as insufficient flexibility along the trunk portion may result in leakage between the prosthesis and the trunk lumen of the body lumen system. In contrast, the Y-connector portion benefits [form] from a less axially flexible structure to avoid distortion of the flow balance between the luminal branches.--

Claims 10-17 and 45-56 have been canceled.

Please amend claims 24-30 to read as follows:

24. (Amended) An endoluminal prosthesis [for use in a bent body lumen, the prosthesis] comprising a radially expandable tubular frame [defining an axis], the frame including a plurality of resiliently expandable loops and a plurality of plastically deformable connector elements extending between adjacent loops [which] that allow the [axis] tubular frame to plastically conform to [the] a body lumen.

25. (Amended) [An] The endoluminal prosthesis as in claim 24, wherein the connector elements plastically deform at a predetermined load [which] that is greater than physiological loads imposed on the deployed prosthesis by the [surrounding] body lumen.

26. (Amended) [An] The endoluminal prosthesis as in claim 25, wherein the predetermined load is less than or equal to loads imposed on the prosthesis during deployment of the prosthesis within the body lumen.

27. (Amended) [An] The endoluminal prosthesis as in claim 24, wherein [the] adjacent expandable loops are axially separated, and wherein the connector elements comprise serpentine structures [which] that extend axially between the adjacent expandable loops.

28. (Amended) [An] The endoluminal prosthesis as in claim 24, wherein the expandable loops comprise ring-frames.

29. (Amended) [An] The endoluminal prosthesis as in claim 28, further comprising a tubular liner supported by the ring-frames and the connector elements.

30. (Amended) [An endoluminal prosthesis as in claim 24] An endoluminal prosthesis comprising a radially expandable tubular frame defining an axis, the frame

including a plurality of expandable loops and a plurality of connector elements extending between adjacent loops that allow the axis to plastically conform to a body lumen,

wherein an attachment mechanism allows a limited axial motion between at least some connector elements and an associated loop without deforming the connector elements.

Claims 60-74 are new.

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